

CLAIMS

We claim:

- 1 1. A pliers head for pressing work pieces, comprising:
2 a stationary die;
3 a movable die;
4 a first element being designed as a comparatively stiff housing;
5 a second element being designed as a lever, said lever being designed and
6 arranged to be subjectable to a pretensional force, the pretensional force having at
7 least the value of a predetermined maximum pressing force of said pliers head,
8 said first and second element being designed as separate parts and
9 being designed and arranged to form a C-shaped mouth, said dies being
10 located in said C-shaped mouth;
11 a joint being located at said first element and being designed and arranged to
12 allow for pivotal movement of said second element with respect to said first element;
13 and
14 a stop being designed and arranged to secure a parallel position of said
15 stationary die and said movable die with respect to one another.

- 1 2. The pliers head of claim 1, wherein said lever is at least partly designed as a
2 deformable bending lever, said bending lever including:
3 a first lever arm, said first lever arm being designed to be comparatively stiff
4 to bending, said first lever arm being connected to said stationary crimping die; and
5 a second lever arm, said second lever arm being designed to be
6 comparatively resilient, said second lever arm not being connected to said dies.

1 3. The pliers head of claim 2, further comprising an adjustable second stop
2 being designed and arranged to apply pretensional forces onto said second lever
3 arm.

1 4. The pliers head of claim 1, wherein
2 said joint includes a pin being connected to said stiff housing, and
3 said lever is designed as a rocking lever having a middle portion, said rocking
4 lever with its middle portion being designed and arranged to be pivotable about said
5 pin.

1 5. The pliers head of claim 2, wherein
2 said joint includes a pin being connected to said stiff housing, and
3 said lever is designed as a rocking lever having a middle portion, said rocking
4 lever with its middle portion being designed and arranged to be pivotable about said
5 pin.

1 6. The pliers head of claim 3, wherein
2 said joint includes a pin being connected to said stiff housing, and
3 said lever is designed as a rocking lever having a middle portion, said rocking
4 lever with its middle portion being designed and arranged to be pivotable about said
5 pin.

1 7. The pliers head of claim 1, wherein said lever has an approximately
2 rectangular shape.

1 8. The pliers head of claim 2, wherein said lever has an approximately
2 rectangular shape.

1 9. The pliers head of claim 3, wherein said lever has an approximately
2 rectangular shape.

1 10. The pliers head of claim 4, wherein said lever has an approximately
2 rectangular shape.

1 11. The pliers head of claim 5, wherein said lever has an approximately
2 rectangular shape.

1 12. The pliers head of claim 6, wherein said lever has an approximately
2 rectangular shape.

1 13. The pliers head of claim 1, wherein said stop is designed as a pin, said pin
2 being designed and arranged to protrude through said stiff housing and through said
3 lever.

1 14. The pliers head of claim 13, further comprising an elongated hole being
2 located in said stiff housing, said pin being designed and arranged to protrude
3 through said elongated hole.

1 15. The pliers head of claim 13, further comprising an elongated hole being
2 located in said lever, said pin being designed and arranged to protrude through said
3 elongated hole.

1 16. The pliers head of claim 3, wherein said adjustable second stop is designed
2 as an eccentric bolt, said eccentric bolt being supported at said stiff housing.

1 17. The pliers head of claim 1, wherein
2 said pliers head has a plane of main extension;
3 said stiff housing includes two cover plates; and
4 said lever includes two plates, said cover plates and said plates being
5 designed and arranged to be symmetric with respect to the plane of main extension
6 of said pliers head.

1 18. The pliers head of claim 1, wherein said stationary die is connected to said
2 lever and said movable die is connected to said stiff housing.

1 19. The pliers head of claim 1, further comprising a spring unit, said spring unit
2 being designed and arranged to supply pretension to said lever, said lever being
3 designed to be stiff to bending.

1 20. A pliers head for pressing work pieces, comprising:
2 a stationary die;
3 a movable die, said stationary die and said movable die being associated with
4 one another to form at least one nest being designed and arranged for receiving a
5 work piece to be pressed;
6 a housing,
7 said housing being designed to be comparatively stiff,
8 said housing being designed and arranged to support said movable
9 die in a way that said movable die is movable in a linear direction towards and
10 away from said stationary die;
11 a lever,
12 said lever being connected to said stationary die,
13 said lever and said housing being designed as separate parts and
14 being designed and arranged to form a C-shaped mouth in which said dies
15 are located;
16 a joint being designed and arranged to connect said housing and said lever in
17 a way that said lever may be pivoted with respect to said housing about said joint;
18 a stop being designed and arranged to limit pivotal movement of said lever
19 with respect to said housing; and
20 a resilient element,
21 said resilient element being designed and arranged to supply
22 pretensional torque to said lever, the pretensional torque counteracting
23 pressing torque resulting from a movement of said movable die towards said
24 stationary die,
25 said resilient element and said stop being designed and arranged to
26 secure a parallel position of said first and second die with respect to one
27 another.

1 21. The pliers head of claim 20, further comprising an adjustable second stop,
2 wherein said lever is at least partly designed as a deformable bending lever, said
3 bending lever including:

4 a first lever arm, said first lever arm being designed to be comparatively stiff
5 to bending, said first lever arm being connected to said stationary crimping die; and

6 a second lever arm, said second lever arm being designed to be
7 comparatively resilient, said second lever arm not being connected to said dies,

8 said adjustable second stop and said second lever arm together forming said
9 resilient element.

1 22. The pliers head of claim 21, wherein said adjustable second stop is designed
2 as an eccentric bolt, said eccentric bolt being supported at said housing.

1 23. The pliers head of claim 20, wherein said resilient element is designed as a
2 spring unit including a least one disk spring.

1 24. The pliers head of claim 20, wherein
2 said joint includes a pin being connected to said housing, and
3 said lever is designed as a rocking lever having a middle portion, said rocking
4 lever with its middle portion being designed and arranged to be pivotable about said
5 pin.

1 25. The pliers head of claim 21, wherein
2 said joint includes a pin being connected to said housing, and
3 said lever is designed as a rocking lever having a middle portion, said rocking
4 lever with its middle portion being designed and arranged to be pivotable about said
5 pin.